

ABSTRACT

Process for constructing a 3D scene model by analysing image sequences.

The process comprises the following steps

- calculation, for an image, of a depth map (1) corresponding to the depth, in 3D space, of the pixels of the image,
- calculation, for an image, of a resolution map (2) corresponding to the 3D resolution of the pixels of the image, from the depth map,
- matching (6) of a pixel of a current image with a pixel of another image of the sequence, pixels relating to one and the same point of the 3D scene, by projecting the pixel of the current image onto the other image,
- selection of a pixel of the current image (6) depending on its resolution and on that of the pixels of other images of the sequence matched with this pixel,
- construction of the 3D model (8) from the selected pixels.

One application relates to the generation of images for navigation.

Fig. 1

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